

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/501,423	07/13/2004	Johannes Jacobus Franciscus Geijtenbeek	NL 020024	9929	
24737 7:	590 07/17/2006	EXAMINER			
	ELLECTUAL PROF	HO, BINH VAN			
P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510		ART UNIT	PAPER NUMBER		
				2163	
			DATE MAILED: 07/17/2006		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)			
Office Action Summary		10/501,423	GEIJTENBEEK ET AL.			
		Examiner	Art Unit			
		Binh V. Ho	2163			
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1)⊠	Responsive to communication(s) filed on <u>24 April 2006</u> .					
	This action is <b>FINAL</b> . 2b) ☐ This action is non-final.					
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-15 and 20-22</u> is/are pending in the application.						
	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
•	6)⊠ Claim(s) <u>1, 3-15 and 20-22</u> is/are rejected.					
	Claim(s) 2 is/are objected to.	r alastian requirement				
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
	The specification is objected to by the Examine					
10)⊠ The drawing(s) filed on <u>13 July 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)⊠ All b)□ Some * c)□ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Occ the attached detailed entire detail for a list of the estimate depice histories.						
Attachment(s)						
1) Noti	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948)	4)  Interview Summai Paper No(s)/Mail I				
3) 🔲 Info	ce of Draftsperson's Patent Drawing Review (P10-948) rmation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 er No(s)/Mail Date		Patent Application (PTO-152)			

Page 2

Application/Control Number: 10/501,423

Art Unit: 2163

### **DETAILED ACTION**

1. This is a response to amendment filed 12/23/2005. The amended claims 1-10 and newly added claims 11-15 necessitate a new ground of rejection as discussed below.

#### Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 3. Claims 1-5, and 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- 4. Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

  See MPEP § 2173.05(d).
- 5. The term "for instance" in claim 1 is a relative term which renders the claim indefinite. The term "for instance" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.
- 6. The term "close to" in claim 1 is a relative term which renders the claim indefinite.

  The term "close to" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Art Unit: 2163

7. The term "aspect ratio" in claim 1 is a relative term which renders the claim indefinite. The term "aspect ratio" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 1 ("with aspect ratio greater than 3 or even 4") is rejected under 35 8. U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Because it is not clear whether the ratio is 3, 3.1, 3.2, ... or 4 or 5 or 6, or 10 etc... the term "aspect" is vaque because it does not specify what kind of ratio is (etc. diameter, length, width, power, current, voltage ... etc)

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that 9. form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, are rejected under 35 U.S.C. 102(b) as being anticipated by Graham 10. (5,083,059).

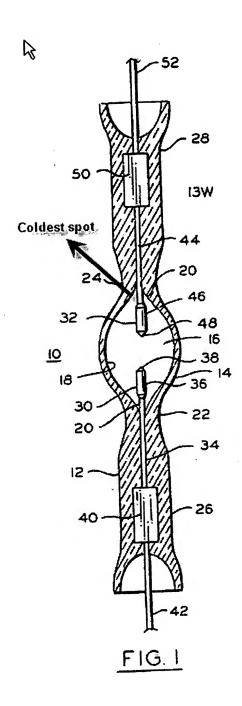
(Claim 1)

Graham discloses in figure 1, Metal halide lamp, most specifically a metal halide lamp with an aspect ratio greater than 3, comprising a discharge chamber (16) having walls sealingly enclosing the discharge chamber; two electrodes (30,32) arranged in the discharge chamber opposite each other, for burning an arc therebetween; the discharge chamber containing a saturated system comprising an excess amount of salt Application/Control Number: 10/501,423 Page 4

Art Unit: 2163

(col.5, lines 16 +), such as for instance metal halides, such that during operation of the lamp, a salt pool of melted salt will be present inside the discharge chamber; the lamp being designed such that, when the lamp is operative in a vertical orientation (Figures 1-3), the location of the salt pool is close to the top of the discharge chamber.

Art Unit: 2163



Art Unit: 2163

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Alderman (6,844,676).

(Claim 1)

Alderman discloses Metal halide lamp, most specifically a metal halide lamp with an aspect ratio greater than 3 (col.1, lines 50 +), comprising a discharge chamber having walls sealingly enclosing the discharge chamber (Figure 1, col. 1, lines 7 +); two electrodes (30,40) arranged in the discharge chamber opposite each other, for burning an arc therebetween; the discharge chamber containing a saturated system comprising an excess amount of salt (col.7, lines 44 +), such as for instance metal halides, such that during operation of the lamp, a salt pool of melted salt will be present inside the discharge chamber; the lamp being designed such that, when the lamp is operative in a vertical orientation (col.2, lines1-3), the location of the salt pool is close to the top of the discharge chamber.

(Claim 3)

Alderman discloses in figures 2A-2B, the lamp is designed such that, when the lamp is operative in a vertical orientation (col., lines 5 +), an arc heats (col., lines 43 +)

Art Unit: 2163

the ceiling of the discharge chamber to a lesser extent than the bottom or lower cap of the discharge chamber.

# Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all 12. obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-5, and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Kawashima (6,294,870).

(Claims 4)

Graham discloses substantially all of the elements, except the lower electrode has a point-to-bottom distance that is smaller than the point-to-bottom distance of the upper electrode. Kawashima teaches in figure 5, the lower electrode (22) shorter than upper electrode (23). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the lower electrode shorter than upper electrode in vertical position lamp as show by Kawashima in Graham, in order to reduce the heat at the top compare at the bottom of the lamp.

(Claims 5)

Graham discloses that the lower electrode has a point-to-bottom distance within the range of 0-5 mm (col.20, lines 31 +).

(Claim 20)

Art Unit: 2163

Graham discloses that the lamp is provided with additional heat generating means located close to one end of the discharge chamber.

(Claim 21)

Graham discloses that the additional heat generating means comprises a radiation coil (col. 18, lines 27 +).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graham (6,147,453) in view of Liebe (4,621,216).

(Claim 22)

Graham discloses substantially all of the elements, except a pair of electrically conductive lamp supports supporting the lamp and supplying power to the lamp, wherein the radiation coil is also powered by the said lamp supports. Liebe discloses a pair of electrically conductive lamp supports supporting the lamp and radiation coil (Figures 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a pair of electrically conductive lamp supports shown by Liebe to support the radiation coil in Graham in order to start up the lamp faster.

# **Response To The Arguments**

13. Applicant's arguments filled on 02/27/2006 have been fully considered. Applicant made the following arguments:

Accordingly, Applicant submits that "Claim 1 has also been rejected in the term 'aspect ratio' is indefinite. However, the term has been defined at page 3, lines 27-30 of the specification as the ratio Li/Di, where Li and Di are the internal length and diameter,

respectively, of the discharge chamber. Accordingly, the term 'aspect ratio' is not indefinite."

The Examiner respectfully disagreed with the Applicant's argument above, since "'aspect ratio'. . . the ratio Li/Di, where Li and Di are the internal length and diameter. ", has been defined at page 3, line 27-30 of the specification, but not in claim 1.

Accordingly, Applicant submits that "However, he does not show the salt pool 98 near the top of the discharge chamber, but rather shows the salt pool near the bottom of the chamber (Fig. 3)."

The Examiner respectfully disagreed with the Applicant's argument above, since Graham discloses the salt pool in figure 3, is close to the top of the discharge chamber ("close to" is a relative term)

#### Conclusion

14. Applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2163

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### Inquiry

Any inquiry concerning this communication or earlier communications from the 15. examiner should be directed to Binh V. Ho whose telephone number is 571 272 8583. The examiner can normally be reached on M-F from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

> Binh V Ho Examiner

Art Unit 2163 SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2100